

Title (en)  
Piezoelectric actuator.

Title (de)  
Piezoelektrischer Antrieb.

Title (fr)  
Organe d'actionnement piezoélectrique.

Publication  
**EP 0479328 A2 19920408 (EN)**

Application  
**EP 91117052 A 19911007**

Priority  
JP 26893990 A 19901005

Abstract (en)  
In a piezoelectric actuator of the type which has a plurality of grooves on the outer side surface of the actuator body, mechanical reliability of the actuator is enhanced by providing grooves also in the respective layers of a material exhibiting electrostrictive effect located over and below the top and the bottom ends of the actuator. Moreover, a further improvement of mechanical strength can be attained by providing additional grooves onto the outer most grooves. <IMAGE>

IPC 1-7  
**H01L 41/08**

IPC 8 full level  
**H10N 30/50** (2023.01)

CPC (source: EP US)  
**H10N 30/508** (2023.02 - EP US)

Cited by  
EP1239525A3; DE102005061816B4; EP1764844A1; EP1944814A1; EP2124268A4; US7449077B2; US8358051B2; US8704430B2; WO2006042791A1; WO03105246A3; WO2007031700A1; WO0079615A1; EP0844678B2

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DOCDB simple family (publication)  
**EP 0479328 A2 19920408; EP 0479328 A3 19920805; EP 0479328 B1 19950524**; DE 69109990 D1 19950629; DE 69109990 T2 19951012; JP H04214686 A 19920805; US 5237239 A 19930817

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**EP 91117052 A 19911007**; DE 69109990 T 19911007; JP 30219390 A 19901107; US 77233391 A 19911007